

WHAT IS CLAIMED IS:

A 1. A method for identifying a participant during a conference call, comprising:

receiving a packet containing data that represents audible sounds spoken by
5 one of a plurality of participants in a conference call;

determining a speaker of the audible sounds using voice profile information of the participants; and

providing identification information of the speaker to the other participants in the conference call contemporaneously with providing audible sounds based on the
10 data to those participants.

2. The method of Claim 1, wherein identification information comprises the name and title of the speaker associated with the voice profile information.

15 3. The method of Claim 1, wherein providing identification information for the speaker to the other participants comprises generating a message containing identification information associated with the voice profile information of the speaker.

20 4. The method of Claim 1, wherein voice profile information comprises voice frequency characteristics.

A 5. The method of Claim 1, wherein the packet is a voice over Internet protocol packet.

25 6. The method of Claim 1, wherein determining a speaker of the audible sounds using voice profile information for the participants comprises analyzing the data to determine frequency characteristics of the audible sounds and comparing the determined frequency characteristics to frequency characteristics in the voice profile
30 information.

A 7. The method of Claim 1, wherein determining a speaker of the audible sounds using voice profile information for the participants comprises:

receiving voice profile information and identification information regarding the participants to be involved in the conference call; and

5 comparing the data against the voice profile information of the participants to be involved in the conference call.

8. The method of Claim 7, wherein the message contains a time stamp that associates it with the data representing the audible sounds.

10 9. The method of Claim 1, wherein providing identification information for the speaker to the other participants comprises generating a message indicating that no participant has been associated with the audible sounds if the audible sounds are not determined to be associated with the voice profile information of the participants.

15 10. The method of Claim 1, further comprising updating the voice profile information based on the audible sounds if the audible sounds are associated with the voice profile information of one of the participants.

20 11. The method of Claim 1, wherein providing identification information for the speaker to the other participants contemporaneously with providing audible sounds based on the data comprises displaying the name associated with the voice profile information while generating audible sounds based on the data.

25 12. The method of Claim 1, wherein the data is in G.711, G.723, or G.729 format.

30 13. The method of Claim 1, further comprising adjusting, based on the identity of the speaker, the direction from which the audible sounds based on the data arrive at a participant of the conference call.

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14. The method of Claim 1, wherein determining a speaker of the audible sounds using voice profile information of the participants comprises using the address from which the data representing the audible sounds originated to reduce the voice profile information to be searched.

15. The method of Claim 1, further comprising adjusting the identification information provided to a participant based on commands from the participants.

10 16. The method of Claim 1, further comprising:
determining that the audible sounds are not associated with the voice profile information of the participants; and
generating a message requesting identification information and voice profile information associated with the audible sounds.

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A 17. A method for identifying a participant during a conference call, comprising:

receiving a packet containing data that represents audible sounds spoken by one of a plurality of participants in a conference call;

5 determining whether the audible sounds represented by the data are associated with voice profile information of one of the participants; and

generating a message containing identification information associated with the voice profile information if the audible sounds are associated with the voice profile information of one of the participants.

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18. The method of Claim 17, further comprising initiating sending the message and the data to a plurality of participants in the conference call.

15 19. The method of Claim 17, wherein the identification information comprises the name and title of the participant and the voice profile information comprises voice frequency characteristics of the participant.

20. The method of Claim 17, wherein the packet is a voice over Internet protocol packet.

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21. The method of Claim 17, wherein determining whether the audible sounds represented by the data are associated with voice profile information of one of the participants comprises analyzing the data to determine frequency characteristics of the audible sounds and comparing the determined frequency characteristics to frequency characteristics in the voice profile information.

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22. The method of Claim 17, wherein determining whether the audible sounds represented by the data are associated with voice profile information of one of the participants comprises:

30 receiving voice profile information and identification information regarding the participants to be involved in a conference call; and

comparing the data against the voice profile information of the participants to be involved in the conference call.

23. The method of Claim 17, wherein generating a message containing identification information associated with the voice profile information comprises generating a message containing the name and title associated with the voice profile information.

24. The method of Claim 17, wherein the message includes a time stamp associating the identification information with the data.

25. The method of Claim 17, further comprising generating a message indicating that no voice profile information has been associated with the audible sounds if the audible sounds are not associated with the voice profile information of one of the participants.

26. The method of Claim 17, further comprising updating the voice profile information based on the audible sounds if the audible sounds are associated with the voice profile information of one of the participants.

27. The method of Claim 17, wherein determining whether the audible sounds represented by the data are associated with voice profile information of one of the participants comprises using an origination address associated with the data to reduce the voice profile information to be searched.

28. The method of Claim 17, further comprising:
determining that the audible sounds are not associated with the voice profile information of the participants; and
generating a message requesting identification information and voice profile information associated with the audible sounds.

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29. The method of Claim 17, further comprising:
determining that a participant wants to enter the conference call; and
generating a message requesting voice profile information and identification
information of the participant.

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TOTAL 509

A 30. A set of logic encoded in media for identifying a participant during a conference call, the logic operable to:

detect the reception of a packet containing data that represents audible sounds spoken by one of a plurality of participants in a conference call;

5 determine whether the audible sounds represented by the data are associated with voice profile information of one of the participants; and

generate a message containing identification information associated with the voice profile information if the audible sounds are associated with the voice profile information of one of the participants.

10 31. The logic of Claim 30, wherein the logic is further operable to initiate sending the message and the data to a plurality of participants in the conference call.

15 32. The logic of Claim 30, wherein the identification information comprises the name and title of the participant and the voice profile information comprises voice frequency characteristics of the participant.

20 33. The logic of Claim 30, wherein the packet is a voice over Internet protocol packet.

25 34. The logic of Claim 30, wherein the logic is operable to analyze the data to determine frequency characteristics of the audible sounds and compare the determined frequency characteristics to frequency characteristics in the voice profile information in determining whether the audible sounds represented by the data are associated with voice profile information of one of the participants.

35. The logic of Claim 30, wherein determining whether the audible sounds represented by the data are associated with voice profile information of one of the participants comprises:

30 receiving voice profile information and identification information regarding the participants to be involved in a conference call; and

A comparing the data against the voice profile information of the participants to be involved in the conference call.

36. The logic of Claim 30, wherein the logic is operable to generate a message containing the name and title associated with the voice profile information in generating a message containing identification information associated with the voice profile information.

37. The logic of Claim 30, wherein the message includes a time stamp associating the identification information with the data.

38. The logic of Claim 30, wherein the logic is further operable to generate a message indicating that no voice profile information has been associated with the audible sounds if the audible sounds are not associated with the voice profile information of one of the participants.

39. The logic of Claim 30, wherein the logic is further operable to update the voice profile information based on the audible sounds if the audible sounds are associated with the voice profile information of one of the participants.

40. The logic of Claim 40, wherein the logic is operable to use an origination address associated with the data to reduce the voice profile information to be searched in determining whether the audible sounds represented by the data are associated with voice profile information of one of the participants.

41. The logic of Claim 40, wherein the logic is further operable to:
determine that the audible sounds are not associated with the voice profile information of the participants; and
generate a message requesting identification information and voice profile information associated with the audible sounds.

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42. The logic of Claim 40, wherein the logic is further operable to:
determine that a participant wants to enter the conference call; and
generate a message requesting voice profile information and identification
information of the participant.

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43. An apparatus for identifying a participant during a conference call, comprising:

means for receiving a packet containing data that represents audible sounds spoken by one of a plurality of participants in a conference call;

means for determining whether the audible sounds represented by the data are associated with the voice profile information of one of the participants; and

means for generating a message containing identification information associated with the voice profile information if the audible sounds are associated with the voice profile information of one of the participants.

44. The apparatus of Claim 43, further comprising means for initiating sending the message and the data to a plurality of participants in the conference call.

45. The apparatus of Claim 43, wherein the identification information comprises the name and title of the participant and the voice profile information comprises voice frequency characteristics of the participant.

46. The apparatus of Claim 43, wherein the packet comprises a voice over Internet protocol packet.

47. The apparatus of Claim 43, wherein means for determining whether the audible sounds represented by the data are associated with the voice profile information of one of the participants comprises means for analyzing the data to determine frequency characteristics of the audible sounds and means for comparing the determined frequency characteristics to frequency characteristics in the voice profile information.

48. The apparatus of Claim 43, wherein means for determining whether the audible sounds represented by the data are associated with the voice profile information of one of the participants comprises means for receiving voice profile information and identification information regarding the participants to be involved in

7 a conference call and means for comparing the data against the voice profile information of the participants to be involved in the conference call.

49. The apparatus of Claim 43, wherein means for generating a message
5 containing identification information associated with the voice profile information comprises means for generating a message containing the name and title associated with the voice profile information.

50. The apparatus of Claim 43, wherein the message includes a time stamp
10 associating the identification information with the data.

51. The apparatus of Claim 43, further comprising means for generating a
message indicating that no voice profile information has been associated with the
audible sounds if the audible sounds are not associated with the voice profile
15 information of one of the possible participants.

52. The apparatus of Claim 43, further comprising means for updating the
voice profile information based on the audible sounds if the audible sounds are
associated with the voice profile information of one of the participants.
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53. The apparatus of Claim 43, wherein means for determining whether
the audible sounds represented by the data are associated with voice profile
information of one of the participants comprises means for using an origination
address associated with the data to reduce the voice profile information to be
25 searched.

54. The apparatus of Claim 43, further comprising:
means for determining that the audible sounds are not associated with the
voice profile information of the participants; and
30 means for generating a message requesting identification information and
voice profile information associated with the audible sounds.

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55. The apparatus of Claim 43, further comprising:

means for determining that a participant wants to enter the conference call;

and

5 means for generating a message requesting voice profile information and
identification information of the participant.

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A 56. An apparatus for identifying a participant during a conference call, comprising:

5 a communication interface adapted to be coupled to a communication network, the communication interface operable to receive information from and send information to the communication network, the communication interface further operable to receive a packet containing data that represents audible sounds;

10 a memory coupled to the communication interface, the memory operable to store a program containing logic and to store a database containing voice profile information and identification information for at least some of the participants in a conference call; and

15 a processor coupled to the memory, the processor operable to determine whether the audible sounds represented by the data are associated with the voice profile information of one of the participants and to generate a message including identification information associated with the identified voice profile information if the audible sounds are associated with the voice profile information of one of the participants.

20 57. The apparatus of Claim 56, wherein the communication interface comprises a network interface card.

25 58. The apparatus of Claim 56, wherein the identification information comprises the name, title, and organization of the participants and the voice profile information comprises the voice frequency characteristics of the participants.

30 59. The apparatus of Claim 56, wherein the packet comprises a voice over Internet protocol packet.

60. The apparatus of Claim 56, wherein the data in the packet is encoded according to G.711, G.723, or G.729.

A 61. The apparatus of Claim 56, wherein the processor is further operable to initiate sending the message and the data to a plurality of participants in the conference call.

5 62. The apparatus of Claim 56, wherein the processor comprises a decoder for decoding the data in the packet and a digital signal processor for extracting voice characteristics from the decoded data.

10 63. The apparatus of Claim 56, wherein the processor is operable to analyze the data to determine frequency characteristics of the audible sounds and compare them against the voice profile information in determining whether the audible sounds represented by the data are associated with the voice profile information of one of the participants.

15 64. The apparatus of Claim 56, wherein the processor generates a message containing the name and title associated with the voice profile information in generating a message including identification information associated with the voice profile information if the audible sounds are associated with the voice profile information of one of the participants.

20 65. The apparatus of Claim 56, wherein the processor is operable to compare the data against the voice profile information of the participants to be involved in the conference call in determining whether the audible sounds represented by the data are associated with the voice profile information of one of the participants.

25 66. The apparatus of Claim 56, wherein the processor generates a message indicating that no voice profile information has been associated with the audible sounds if the audible sounds are not associated with the voice profile information of one of the participants.

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A 67. The apparatus of Claim 56, wherein the processor is further operable to update the voice profile information in the database based on the audible sounds if the audible sounds are associated with the voice profile information of one of the participants.

5 68. The apparatus of Claim 56, wherein the message includes a time stamp associating the identification information with the data.

10 69. The apparatus of Claim 56, wherein the processor is operable to use an origination address associated with the data to reduce the voice profile information to be searched in determining whether the audible sounds represented by the data are associated with voice profile information of one of the participants.

15 70. The apparatus of Claim 56, wherein the processor is further operable to:
determine that the audible sounds are not associated with the voice profile information of the participants; and
generate a message requesting identification information and voice profile information associated with the audible sounds.

20 71. The apparatus of Claim 56, wherein the processor is further operable to:
determine that a participant wants to enter the conference call; and
generate a message requesting voice profile information and identification
25 information of the participant.

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72. An apparatus for identifying a participant during a conference call, comprising:

a communication interface adapted to be coupled to a communication network, the communication interface operable to send information to and receive information from the communication network, the communication interface further operable to receive a packet containing data that represents audible sounds;

a memory coupled to the communication interface, the memory operable to store a program containing logic and to store a database containing voice profile information and identification information for at least some of the participants in a conference call;

a codec coupled to the memory, the codec operable to decode the data in the packet;

a digital signal processor coupled to the memory, the digital signal processor operable to determine voice characteristics of the decoded data; and

a processor coupled to the memory, the processor operable to:

- determine whether the voice characteristics are associated with the voice profile information of one of the participants,
- generate a message including identification information associated with the identified voice profile information if the audible sounds are associated with the voice profile information for one of the participants,
- generate a message indicating that no voice profile information has been associated with the audible sounds if the audible sounds are not associated with the voice profile information of the participants, and
- update the voice profile information in the database based on the audible sounds if the audible sounds are determined to be associated with the voice profile information for one of the possible participants.

A 73. A method for identifying a participant during a conference call, comprising:

storing identification information and voice profile information for at least some of the participants in a conference call;

5 detecting the reception a message containing data that represents voice characteristics;

determining whether the voice characteristics correspond to the voice profile information; and

10 generating a message containing the corresponding voice profile information and associated identification information if the voice characteristics correspond to any of the voice profile information.

74. The method of Claim 73, further comprising generating a message indicating that no voice profile information corresponds to the voice characteristics if
15 none of the voice profile information corresponds to the voice characteristics.

75. The method of Claim 73, further comprising:

detecting the reception of a message containing data that represents the name of a participant;

20 determining whether the name corresponds to any of the identification information; and

generating a message containing the corresponding identification information and associated voice profile information.

25 76. The method of Claim 75, further comprising:

determining that no identification information corresponds to the name; and generating a request to be sent to a second database regarding the name.

30 77. The method of Claim 75, wherein the data is a textual representation of the name.

A 78. The method of Claim 73, further comprising:
receiving a second set of voice profile information associated with a
participant; and
updating the voice profile information of the participant based on the second
5 set of voice profile information.

79. The method of claim 73, wherein the identification information
comprises a name, a title, an organization, and an address for each participant.

10 80. The method of Claim 73, wherein the voice profile information
comprises voice frequency characteristics for each participant.

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A 81. An apparatus for identifying a participant during a conference call, comprising:

5 a communication interface adapted to be coupled to a communication network and operable to send information to and receive information from a communication network, the communication interface operable to receive a message containing data that represents voice characteristics;

a memory storing identification information and voice profile information for at least some of the participants in a conference call;

a processor operable to:

10 detect the reception the message,

determine whether the voice characteristics correspond to the voice profile information, and

15 generate a message containing the corresponding voice profile information and associated identification information if the voice characteristics correspond to any of the voice profile information.

82. The apparatus of Claim 81, wherein the processor is further operable to generate a message indicating that no voice profile information corresponds to the voice characteristics if none of the voice profile information corresponds to the voice characteristics.

83. The apparatus of Claim 81, wherein the processor is further operable to:

25 detect the reception of a message containing data that represents the name of a participant;

determine whether the name corresponds to any of the identification information; and

30 generate a message containing the corresponding identification information and associated voice profile information.

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84. The apparatus of Claim 81, wherein the processor is further operable
to:
determine that no identification information corresponds to the name; and
generate a request to be sent to a second database regarding the name.

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85. The apparatus of Claim 84, wherein the data is a textual representation
of the name.

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86. The apparatus of Claim 81, wherein the processor is further operable
to:
detect the reception of a second set of voice profile information associated
with a participant; and
update the voice profile information of the participant based on the second set
of voice profile information.

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87. The apparatus of claim 81, wherein the identification information
comprises a name, a title, an organization, and an address for each participant.

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88. The apparatus of Claim 81, wherein the voice profile information
comprises voice frequency characteristics for each participant.